

CLAIMS

1. Powdered detergent composition obtained by a thin layer drying process and comprising:

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- 1 wt % to balance of anionic surfactants
- 0 to 25 wt %, preferably 1 to 10 wt % of fatty acid derivatives, in particular fatty acid soaps
- up to 75 wt %, in particular 1 to 25 wt % of a support material
- less than 25 wt %, preferably less than 10 wt % and in particular 1 to 5 wt % of total water (i.e. sum of free and bound water)
- 0 to 3 wt % of perfumes
- 0 to 75 wt %, preferably 0 to 50 wt % and in particular 5 to 30 wt % of builder material
- 0.05 to 5 wt %, in particular 0.1 to 3 wt % and most preferably 0.2 to 2 wt % of a sequestrant and/or anti-oxidant, while the composition contains more than 10 ppm, in particular 10 to 1000 ppm of transition (heavy) metal ions, in particular derived from Fe or Cu.

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2. Detergent composition according to claim 1 wherein the anionic surfactant is selected from salts of LAS and/or PAS.

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3. Detergent composition according to claims 1 and 2 wherein the amount of anionic surfactant is 5 to 75 wt%, preferably 10 to 50 wt%.

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4. Detergent composition according to claims 1 to 3
wherein the soap is a fatty acid salt from a fatty acid
with 12 to 20 C-atoms, in particular with 16 to 18 C-
atoms.

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5. Detergent composition according to claims 1 to 4
wherein the sequestrant and or anti-oxidant is selected
from the group consisting of: EDTA; STP; Citric acid; a
BHT derivative such as Tinogard; or Irganox or
Tetronic.

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6. Detergent composition according to claims 1 to 5
wherein the support is selected from the group
consisting of: zeolites; Al-silicates; silicates,
15 alkali carbonates or alkali hydrogencarbonates;
cellulose derivatives; polymers or copolymers from Na-
acrylate.

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7. Detergent composition according to claims 1 to 6
20 wherein the composition is free of an ultraviolet
absorber.

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8. Detergent composition according to claims 1 to 7
wherein the composition also comprises up to 20 wt % of
25 other surfactants, in particular up to 20 wt% of non-
ionic and/or cationic surfactants.

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9. Detergent composition according to claims 1 to 8
wherein the composition has an untapped bulk density of
30 more than 600 g/l.

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10. Process for the production of powdered detergent composition with the composition according to claims 1 to 9, wherein the ingredients of the detergent composition, comprising at least part of the total amount present in the whole composition of at least one of the ingredients selected from the group consisting of support material, anti-oxidant and sequestrant are introduced in a mixer at a first point of introduction and homogenised at a temperature between 10 and 160°C while the remainder of anti-oxidant and/or sequestrant and/or support material is introduced in the mixer at a second point of introduction downstream from the first point of introduction, while the mixture obtained can be sprayed dried by spraying it on the support material.
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11. Process according to claim 10 wherein the mixer applied is selected from the group consisting of: a scraped wall heat exchanger/mixer/drier, a high shear mixer granulator; a medium shear mixer granulator, or a low shear mixer granulator.
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12. Process according to claims 10 and 11 wherein the mixer is selected from a VRV mixer.
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13. Process according to claims 10 to 12 wherein the VRV mixer is applied with a tip speed of 10 to 50 m s⁻¹, preferably 18-45 and most preferably 30 to 40 m.s⁻¹, and a distance between wall and blades of up to 10 mm.
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14. Process according to claims 10 to 13 wherein the VRV
mixer is used with a heater shell area of up to 32 m²,
an inner superficial gas velocity (countercurrent) of
up to 4 m.s⁻¹, pref up to 2 m.s⁻¹ and a residence time of
5 up to 300 sec, preferably up to 60 sec.